

AIR FORCE MATERIEL COMMAND
**LEADING
EDGE**

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PEOPLE**

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LEADING EDGE

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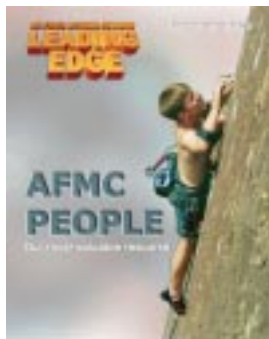
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Cover Stories



Cover by Capt. CK Keegan

4 - 19 AFMC's most valuable resource...

They travel to foreign lands, challenge themselves mentally and physically, save lives and take care of their own, all the while performing a very diverse and challenging mission. In this year of the family, we spotlight a few of the talented people who make up the families of Air Force Materiel Command.

Mission Progress

21 "Night shades" thwart laser's blinding effects

22 Edwards receives flexible, flying "classroom"



Features



23 Flight tests go long way toward quality

24 All in a days work

25 AFMC introduces "Year of the Family"

Departments

3 Mission Briefs

20 News Briefs

26 Awards

Correction

The Leading Edge staff mistakenly referred to the Air Force Research Laboratory Human Effectiveness Directorate as Armstrong Lab and the AFRL Directed Energy Directorate as Phillips Lab on page 7 of the November issue. We regret any confusion this caused our readers.



RESEARCH AND DEVELOPMENT

Research program enters second phase

ROME, N.Y. — The second phase of a research program to increase the ability to target moving ground targets is scheduled to begin later this fall under the guidance of scientists and engineers at the Air Force Research Laboratory Information Directorate.

The Affordable Moving Surface Target Engagement program, or AMSTE, funded by the Defense Advanced Research Projects Agency is designed to investigate and develop technologies to affordably engage moving surface targets such as tanks, tactical ballistic missile transporters and small boats.

AMSTE II efforts will consist of a series of experiments to investigate critical technologies, explore performance boundaries and demonstrate potential operational utility.

"The focus of the research is to develop a new capability for the services to strike with precision, moving surface threats from long ranges and in all weather conditions," said Mr. Jon Jones, program manager in the directorate's information and intelligence exploitation division.

"The program is primarily focusing on ground moving target indication radar, a sensor that can detect moving surface vehicles from long distances," said Mr. Jones. "Planners do not envision developing any specific hardware system. Technology in development during the next seven years will be used to enhance the capability to strike moving targets with high accu-

racy."

AMSTE II program goals include its first weapon drop within one year and attempting to verify and test the accuracy of such a system. Yearly experiments are scheduled which increase in complexity.

The fiscal year 01 experiment will feature airborne experimentation demonstrating precision fire control and weapon delivery with limited target association challenges. The fiscal year 02 experiment will feature airborne experimentation demonstrating integrated high-reliability track maintenance and precision fire control. Finally, the fiscal year 03 experiment will be an end-to-end field demonstration of AMSTE engagement capabilities.

— Reported by Mr. Francis Crumb, AFRL Public Affairs

F-22 arrives at Wright-Patterson to undergo tests

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — While the arrival here Nov. 2 retired it from flight tests, newest Air Force fighter, the F-22 Raptor 4001, still has plenty of usefulness, according to program officials.

Flying from the Air Force Flight Test Center at Edwards Air Force Base, Calif., Mr. Paul Metz, Lockheed's F-22 chief test pilot, a Springfield native and the pilot of this first F-22 on its maiden flight in 1997, delivered the fighter for its next round of tests.

Components, not necessary for the next phase of testing, will be removed from Raptor 4001, the very first F-22 test aircraft, and shipped to Edwards as spare parts for the ongoing flight test

program. Raptor 4002 and 4003 are also in flight test there and two more test aircraft will be delivered by the end of the year.

"Next year Raptor 01 will be mounted on a stand and undergo live-fire testing here," said Mr. Ralph Lauzze, technical director of the aircraft survivability research facility. "Actually shooting an aircraft part with exploding shells and missile fragments demonstrates how well it will withstand anti-aircraft fire."

Hydraulic jacks subject the aircraft wings to flight-like loads and a battery of jet engines blow across the wing to simulate flight speeds in excess of 600 mph. Fuel tanks are filled with jet fuel. Then munitions a potential enemy might use are fired at the wing, he said.

If any flaws are discovered as a result of these tests, adjustments can be made to improve the final production design. Federal law requires this testing prior to the start of full-rate production.

The F-22 Raptor with its stealth, supersonic cruise, agility and advanced integrated avionics, is designed to dominate the skies over future battlefields.

Lockheed Martin, Boeing and Pratt & Whitney helped the Air Force to develop and produce the F-22. Slated to be operational in 2005, the F-22 will replace the Air Force's fleet of F-15 Eagle fighters.

The F-22 is managed by the F-22 System Program Office here, part of Aeronautical Systems Center. Brig. Gen. William J. Jabour is the program director.

— Reported by ASC Public Affairs

TEST AND EVALUATION



X-32A continues testing at Edwards

EDWARDS AIR FORCE BASE, Calif. — The Boeing Strike Fighter X-32A concept demonstrator pictured here makes its tenth flight test during October at Edwards Air Force Base, Calif.

Mr. Fred Knox, Boeing lead test pilot, took the aircraft to 10,000 feet and continued validating its carrier variant flying qualities.

The X-32A is one of two concept demonstrators, the other being Lockheed Martin's X-35A, being tested at Edwards to become a single tactical fighter for the Air Force, Navy, Marines and England's Royal Air Force and Navy. (Photo by Mr. Steve Zapka, AFFTC)

— Reported by AFFTC Public Affairs

From Russia with love

**Baby Hannah
has proven
to be a
"dream come
true"**

Seven-year-old Jessica had no way of knowing that before her parents were married they had talked about having a natural family and then adopting a child. Yet Jessica dreamed she had an adopted sister. Five years later Jessica's vision, which reached into the hearts of her parents, became real.

Jessica, now 12, has a new sister, Hannah, 2, in addition to her natural brother, Robbie, 14. Their parents are Tech. Sgt. and Mrs. Samuel Vines, a couple grateful for the gentle prompting the dream inspired and for the prayer that brought their plan to life.

A long hard road

The Vines brought Hannah home in July from an orphanage in a southern Siberia town some 1,500 miles east of Moscow. Her arrival ended a costly eight-month quest involving three countries and a mountain of paperwork.

Sgt. Vines is a member of the computer security systems support team of the 78th Communications Squadron at Robins Air Force Base, Ga. His wife, Christine, home schools their children. The couple's extended family is the congregation of the Cornerstone Baptist Church in Kathleen, whose prayers and financial support made the adoption a reality.

Sgt. Vines said the adoption plan had been in limbo, particularly during his assignment to a military unit that often deploys to remote areas for prolonged periods. It resurfaced because of the dream and was reaffirmed with his reassignment to the communications squadron.

"We knew there were many kids out there in need of a good home," he said. "We also knew we could provide that home."



They applied through a Georgia adoption agency, which conducted a home study and put their names on a placement list. With no success after eight months, the couple began searching other avenues, including the Internet. That's where Mrs. Vines found Baby Hannah, a Russian child considered difficult to place because of a birth defect — a cleft lip. They knew international adoptions could be difficult and braced themselves for the work ahead. This time they were working with a South Carolina agency, Christian World Adoption.

"We did all the paperwork, then redid it and redid it again," Sgt. Vines said. They were up against complex rules for international adoption and legal papers that originated in three states and Canada, where Mrs. Vines was born. Finally, everything was done and in March the couple was ready to make the trip to Russia to meet their new daughter.

More obstacles

But along came another obstacle — a change in Russian leadership that brought with it a Russian moratorium on international adoptions. The new regime began enforcing rules that had been in place but largely ignored for a decade. It was two more months before Russia lifted the moratorium.

Christian World Adoption handled adoptions for several orphanages in different areas of Russia. Its representative went to the orphanage in June to make the final arrangements. The Vines left Atlanta July 4 for the long trip that would take them from Atlanta to Germany to Moscow to a Siberian town some 1,500 miles away that was home to the orphanage.

Excited and anxious, the couple slept little on the trip, but managed to get some rest when they reached their destination.

They wanted to be fresh for their first meeting with Hannah.

Hannah's home was a brick building, "old but clean," Sgt. Vines said, and well insulated against the bitter Siberian winters. It had neat play areas outside for its 60 children ranging in age from newborn to 4 years old. That part of the world has sunlight just four hours a day for at least nine months, he said. They were fortunate to be there in July, when dark comes between 11 p.m. and midnight, and temperatures are in the comfortable 70- to 80-degree range.

Pleasant surprises

Before meeting Hannah, whose name was then "Maria," the couple met with the orphanage director, a meeting Sgt. Vines described as very formal and consistent with what they had observed with other contacts in the country. The director explained that they had fixed Hannah's cleft lip in March. The news was a surprise to the Vines.

Then came the big moment. Hannah came in holding an attendant's hand.

"How beautiful she was ... taller than what we pictured," Sgt. Vines said. They had seen a video that showed what Hannah looked like six or seven months before and were amazed at how quickly she had grown.

"We loved her before we met her," he said. "We knew she had a quiet personality and how she would concentrate hard to finish a task when presented with something new. You can't tell everything from a video, but we had seen her walk and we knew certain things about her."

New beginnings

A poignant videotape recorded their first moments together — a hesitant toddler with dark hair, round face and Asian eyes looking suspiciously at her new mother, who had gone down to the floor to kiss her. At first, Hannah looked doubtfully at her mother and the white stuffed bear she was holding.

Two days later, mother, father and daughter, obviously comfortable with each other, presented an entirely different picture. Hannah went to her father, whom she calls "papa," cupped her hands to his face and puzzled at his five o'clock shadow. This was not what she was accustomed to seeing in the orphanage filled with female attendants. She hugged "mama" and smiled. She made a game of putting her bear in a bag and pulling it out again.

The Vines spent six days in Russia with their daughter — living in a hotel, going to parks, walking and boating. Before leaving for America, they had another hurdle to clear, a court date. The couple met with

an attorney representing Hannah, a judge, director of the baby home, regional director of orphans, translator and court secretary — all female and all well educated. When it was over, they were relieved and ready to go home.

"We thought she would miss the orphanage, but she has been just the opposite," Sgt. Vines said. "She didn't cry — not even when we left the first day."

Welcome home!

Back home, an excited brother and sister welcomed her into the family. Brother Robbie plays with her on the floor, and Jessica, who has learned some Russian, is teaching her little sister English words and phrases.

"It's as if Hannah has two private teachers," Sgt. Vines said.

He described Hannah Maria — they retained her middle name — as a very happy child who loves to read books, look at pictures — especially those of animals — and hugs the family collie. Hannah is "a very happy child" with a quick, inquisitive mind and an easy nature. She's also content, sleeping 12 hours a night and napping two to three hours a day.

Sgt. Vines said he is grateful for his Christian family and his extended church family.

"This was done through prayer," he said. "It was expensive, but we didn't worry about it because you just know when something is meant to be. We couldn't have done it without it being what we think the Lord wanted for us."

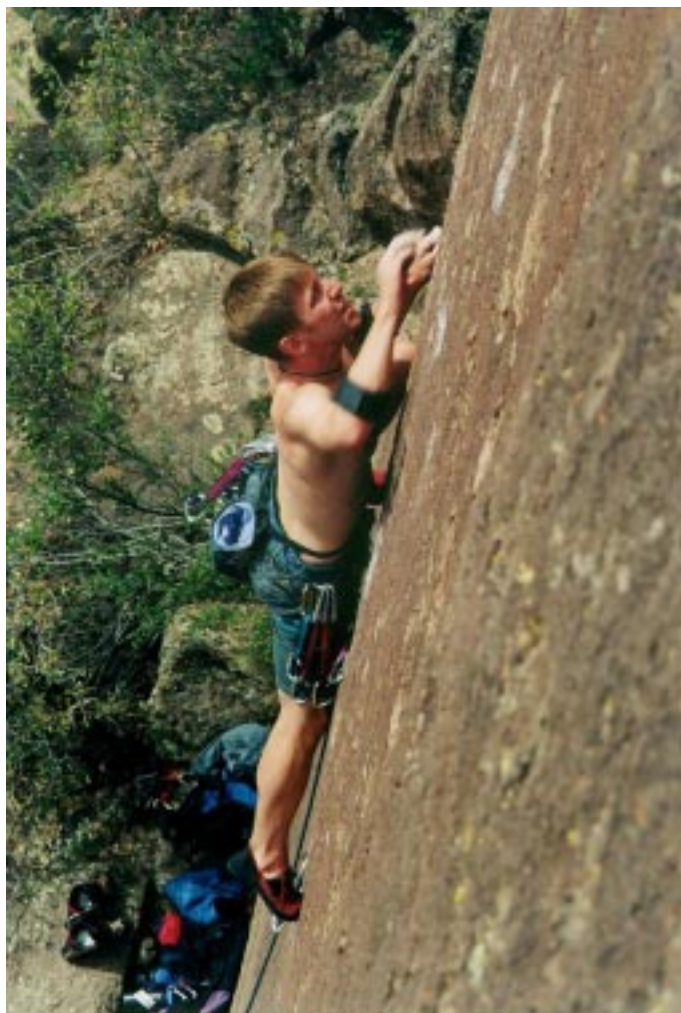
Sgt. Vines said he sometimes thinks about the other parentless children in Russia.

"We were told there are about 600,000 kids in orphanages and another 600,000 on the streets," he said. "That's a huge number. We are just thankful that we could help one of them."

— Ms. Chris Zdrakas, WR-ALC Public Affairs



Hannah, center, enjoys lunch with her new American family. They are, from left, brother, Robbie Vines; father, Tech. Sgt. Samuel Vines; mother, Christine Vines; and sister, Jessica Vines. Years before Hannah joined the family, Jessica dreamed about the family adopting a baby girl. (Photo by Ms. Sue Sapp, Robins Air Force Base, Ga.)



Captain finds beauty, challenge and "high" at the tops of mountains

If he's not cheating death in Bolivia at 20,000 feet climbing Huayna Potosi, then he's cheating death on the 405 heading to work at Los Angeles Air Force Base, Calif. But Capt. Eric J. Kolb says he isn't addicted to danger.

"I love the outdoors and I love the physical challenge of climbing, but the risks I take are very closely calculated and I usually err on the side of caution. I try to choose only climbs that match my experience and abilities," he said.

Minimizing risks

To minimize the risks on his recent South American adventure that took him to Peru and Bolivia, Capt. Kolb, a 26-year-old from Maine, started to prepare over a year ago. Similar to many of the projects here at Space and Missile Systems Center, the execution of the climb was the easy part. The tough part was the preparation.

"I'm right now working on a contract that might take my entire tour to complete. This is a long, tough project where we have to weigh all the risks and be very deliberate in our decision making. When we actually commit the government to the system, that's the easy part," Capt. Kolb said.

Preparation

To prepare for the trip to Bolivia, Capt. Kolb did lots of research from books and magazine articles, and he used the Internet to trade trip logs with climbers who recently made the same journey. This opened his eyes to many of the challenges such as altitude and endurance that he and his climbing partner, Mr. Matt Talbot, were about to face.

"Eric and I run and work out all the time which helped us get ready physically for the climb. The altitude is another story. I live at 6,000 feet in New Mexico, so I got a little head start on acclimatizing to the altitude. But you can't just show up and start climbing without somehow letting your body get used to the altitude," said Mr. Talbot, an Air Force civilian contractor at Kirtland Air Force Base, N.M. Mr. Talbot arrived in Bolivia early and spent three days at 13,000 feet "just lying around" in La Paz.

For Capt. Kolb, getting used to the altitude started in Peru on vacation with his wife, Ila. They met a few friends and did some hiking and easy climbs on the Inca trail.

"I worried the most about getting sick from the altitude or the food. I was told that people who rush acclimatization invariably regret it later, so I wanted to make sure I was ready. I had heard about the natural beauty of Peru and the altitude was near perfect," Capt. Kolb said.

Capt. Kolb and his wife spent four days in Cuzco, Peru, the old imperial Inca capital, at 11,000 feet, where they experienced fairly good food, "amazing" arts and crafts and inexpensive clothing such as Alpaca sweaters and hats. On day five, they hit the "Inca Trail" enroute to the "lost city of the Inca."

"The hike to Machu Picchu was absolutely breathtaking. I know now why some people think it is spiritually enlightening. Words can't really explain it except to say it was like a dream," Ms. Kolb said.

Following their spiritual enlightenment in Peru, Ms. Kolb flew back to the states to continue her studies, while Capt. Kolb made his way to Bolivia to rendezvous with Mr. Talbot. Their preparation paid off.

"Matt and I were in Bolivia for 10 days and climbed both Pequeno Alpamayo which was 17, 600 feet, and Huayna Potosi at 20,000 feet. Both mountains were very kind to us. We had no problems with the climbs or the altitude," Capt. Kolb said.

They might have been ready to tackle even tougher challenges than the 20,000 foot peak they attacked. Prior to the

final push to the summit of Huayna Potosi, Capt. Kolb and Mr. Talbot set up camp approximately five hours away from the top. They ended up climbing the mountain twice that morning.

"We woke up at 1 a.m. and packed up camp, ate a Powerbar and left for the summit. What was supposed to take five hours took us less than three, so we arrived at the top in the pitch black," Mr. Talbot said.

Of course, being the good tourists they were, they always had a camera with them. Photos at the top of the mountain in the middle of the night weren't exactly what they had planned.

"It was so cold that if we had hung around on the top of the mountain waiting for the sun we would have froze to death. So we hiked back down, stopped about halfway to our base camp, and then turned around and went back to the summit. What an incredible experience," Capt. Kolb said.

Coming adventures

Next on the agenda for the mountain-climbing captain is a trek up Washington's Mount Rainier via the Liberty Ridge route with his climbing partner Mr. Talbot. More than 35 square miles of ice and snow and a huge vertical ascent will once again challenge Capt. Kolb's ability to prepare.

"Since Mt. Rainier is so close to the ocean you end up getting about a 10,000 foot climb, which is probably the longest climb anywhere in the lower 48," Capt. Kolb said. "I hope to return and climb Mt. Rainier again with my wife sometime the following year."

No story about a mountain climber would be complete without the obligatory question, "Why do you climb?" Capt. Kolb said it's not for the adrenalin rush and it's certainly not just "because it's there."

"I climb for the beauty and peace of being in high places and for the personal challenge. I get enormous satisfaction in climbing a mountain having maintained physical and mental control at all times," Capt. Kolb said.

Regardless of Capt. Kolb's love for the personal challenge of conquering the mountain, his love for his wife is stronger than the love of the climb.

"My relationship with my wife is the most rewarding thing in my life. I think, like so many things in life, it's the ones that require you to give up some of your desires that ultimately you reap the greatest benefits and greatest happiness from. I would let climbing slide away if I had to maintain my relationship with my wife. Because it really is the big adventure."

— Tech. Sgt. Tim Dougherty, SMC Public Affairs



Above: Some of the sights Capt. Eric Kolb sees during his climbing adventures. Left: Capt. Kolb holds a Space and Missile System Center cup during one of his climbs. Right: Capt. Kolb and his wife pose for the camera following one of their climbs.



"Birdman of Brooks"



"roosts" at SPO

At first glance, Mr. Charles Laljer's hand feeding of baby birds in his office cubicle at Brooks Air Force Base, Texas, is surprisingly similar to what actor Burt Lancaster did in the 1961 movie "Birdman of Alcatraz."

Unlike the film's true-life character Mr. Robert Stroud who set "jail birds" free after caring for them, the "Birdman of Brooks" has been taking exotic birds under his wing to ensure their survival through a captive breeding program.

Nesting instinct

"I take turns with my wife bringing birds to work to give them their afternoon feeding," Mr. Laljer said about his unusual workplace "nesting instincts."

For the past three years the 311th Human Systems Program Office, or SPO, where he works has been a roost for some of the most exotic birds of the world.

The "Birdman" transformed his SPO environment into a temporary aviary nursery out of necessity. The three-week old chicks are voracious eaters and need constant care, said Mr. Laljer, a MITRE contractor who has served the SPO for the past 12 years as a senior systems engineer. "It's a nice diversion, totally different from what I do as an engineer."

For the birds

His wife Cinci, SeaWorld's supervisor of birds, is a wildlife biologist responsible for getting her husband involved with a pastime "for the birds."

"It's an offshoot of her job," he said. "We started our bird collection ten years ago as a hobby. It gradually evolved into a business."

Today, the Laljers own more than 30 exotic birds as commercial breeders. Housed in a backyard aviary at their four-acre Texas hill country home, their collection includes brilliantly colored toucans of "Fruit Loop" cereal fame, colorful varieties of cockatoos, parrots, conures, touracos and macaws.

Captive breeding program

"A few years ago we got involved with keel-billed toucans from Central and South America," Mr. Laljer said. "There are not many in private collections in the U.S." His wife is a keel-billed toucan expert, serving as their studbook keeper for the American Zoo and Aquarium Association. The job involves coordination with other wildlife theme parks and zoos to maintain a healthy captive breeding population.

As part of their interest in propagating keel-billed toucans whose habitat is

threatened in the wild, they acquired a breeding pair through a California breeder. Breeders without special licenses are prohibited by international treaty from importing exotic birds caught in the wild.

He and his wife prefer captive-bred birds, in part, because hand raising their feathered friends makes them a lot easier to handle. By nature, most hand-raised exotic birds are well behaved and have good temperaments. In bringing their babies to work the Laljers have exposed the birds to many people, helping improve the animals' socialization.

So far, no one at work has squawked about the birds' constant "vocalizing" from inside their tiny cages. SPO co-workers regularly flock to the "Birdman's" office to see what creatures he has brought in.

Special diets

While co-workers observe Mr. Laljer feeding birds with a special liquid formula delivered through a syringe, no one really understands the dedication needed to care for them.

"We spend about 90 minutes every night preparing the birds' diets," Mr. Laljer said. Besides baby bird formulas, they prepare food for the adults.

Toucans disdain Fruit Loops cereal, but crave cantaloupe, grapes, papaya, apples and bananas. Parrots enjoy dining on commercial bird pellets, seeds, carrots and broccoli.

The couple literally “get up with the birds” every dawn to feed them. An “early bird” there doesn’t get the worm, it just gets fed first.

Here, kitty-kitty

Not all birds they raise are destined for sale. An African gray parrot named “Stanley” is a talented pet.

“Stanley probably has a 50-word vocabulary,” Mr. Laljer said. “He calls our dog by name, saying, ‘Here, Fritz!’ He also imitates a lot of other sounds he hears. He does great cat impersonations, actually meowing. We sometimes think the cat is at the door.”

While Mr. Laljer is the “Birdman,” his wife is the true ornithologist. His wife made national news in 1998 for her unique way of saving a baby penguin at SeaWorld.

“She used Elmer’s glue to help reconstruct the egg’s outer shell that had been partially crushed. The baby hatched on Thanksgiving Day and was named Elmer.”

— *Mr. Rudy Purificato, 311th HSW*



Mr. Charles Laljer feeds an exotic baby bird in his “temporary aviary nursery” at Brooks Air Force Base, Texas.

*Senior Airman
Richard Seman
recently returned to
Eglin Air Force Base,
Fla., from Istres,
France following a six
month assignment as a
translator for the 16th
Air Expeditionary
Wing, where he was on
call 24 hours a day.*



Young airman returns from dream assignment in France

As a young airman stationed at Eglin Air Force Base, Fla., learned, being fluent in a foreign language can open many doors. Senior Airman Richard Seman recently returned from his dream assignment — six months in France.

Work was hard and hours were long for Airman Seman, who comes by his cradle language naturally. He spent 10 years growing up in France before moving to Orlando and then Montreal, Canada. He entered the Air Force six years ago and passed the Air Force proficiency exam in French, which entered him into the data bank for translators.

When the assignment to Istres, France, arose, Airman Seman, who offers unit ministry support for the 33d Fighter Wing, was ready to travel. However, first came the approval of his supervisor, Chaplain (Lt. Col.) Kevin Adams.

“The Air Force doesn’t have a preponderance of interpreters, and it’s obvious Airman Seman has a gift,” Chaplain Adams said. “It was important to help the Air Force fill a need. I’d be remiss if I said no to his assignment.”

Airman Seman reported to the 16th Expeditionary Operations Group, a component of the Air Force 16th Air Expeditionary Wing, where the mission is maintaining KC-135 refuelers.

“I hit the ground running,” he said. “It was an hourglass effect. Everything would come into our office, go to the French, and then return to our office.” The details covered the spectrum from civil engineer issues to hospital support.

“The local hospital supported whatever injuries couldn’t be treated on base,” said Airman Seman. “I would translate and transcribe the doctor’s orders so the member could have it for his records.”

This was the first interpreter tasking for Airman Seman, who joined two other active-duty and one local civilian interpreter to get the job done.

“I can’t emphasize enough the contribution we made to this deployment,” he said. “We couldn’t function outside the deployment not knowing the language.”

Airman Seman said he was on call 24 hours a day and didn’t have a lot of free time to enjoy the natural beauty of the area. “Even at the hotel, people would come up to me and ask me to translate for them,” he said. “If I’d go on a sightseeing tour, I’d constantly get questions or the phone would ring.”

But the long hours wouldn’t deter him from volunteering again.

“I’d go again in a heartbeat,” he said. “It was rewarding and good exposure to other careers outside the chapel ministry. After all, I don’t get to order six cubic meters of concrete here.”

Settling back into a routine will take some time for the young airman.

“It’s back to 40 hour weeks instead of 70 hours,” he said. “When I came back, I had two weeks leave and must have vacuumed my house at least twice a day since I had nothing else to do.”

Nothing but to reflect on a unique experience that has paid dividends for a young man and supported the Air Force mission overseas.

— *Ms. Lois Walsh, AAC Public Affairs*

Eglin hero *finds joy and sorrow in* C-130 *crash*



"Excitement, awe and sorrow" are the words used by Master Sgt. Mark Norris, 96th Civil Engineer Squadron, Station 4 Battalion chief, Eglin Air Force Base, Fla., as he expressed his emotions at winning the Air Force Fire Fighter Heroism award winner.

Sgt. Norris was recognized for actions he performed during a C-130 crash in Kuwait Dec. 10, 1999, when he was one of 86 passengers and eight crewmembers on board.

A fifteen minute flight

Sgt. Norris was on the last leg of a trip to Ahmed Al Jabar AB, where he was deploying for duty as fire chief. He boarded the ill-fated C-130 at Kuwait City International Airport for a short 15-minute flight to his final destination. Ironically, Norris didn't know how a chance meeting with two airmen earlier in Baltimore, Md., would intertwine their lives.

"When I got on the plane in Baltimore, another passenger and I were the only two people sitting across five seats," he said. "It turned out he was also going to Al Jabar as a fire fighter."

Sgt. Norris then saw another airman with a McClellan AFB, Calif., fire fighter tee-shirt and joked with both airmen that he should stand at the front of the aircraft and announce he needed to see all fire fighters on board. He later learned there were, in fact, other fire fighters there who would assist passengers during the crash.

The airmen transferred numerous times, criss-crossing continents until they exhaustedly boarded the C-130 in the early hours of Dec. 10. Their lives were about to change.

As the plane attempted to land, it impacted with the ground approximately 2,895 feet short and about 40 feet left of the runway centerline, causing the loss of the main landing gear and holes in the aircraft interior. The plane then regained altitude and diverted back to Kuwait City International Airport, where it made a no-gear landing. Three people were killed and 17 injured during the initial impact.

"Upon impact the aircraft flattened in the sand for 215 feet and bounced back into the air, and then we were flying again," Sgt. Norris recalled. "I could see through the debris-filled interior shocked passengers rising from their seats. Realizing the danger, I stood up and instructed them to sit back down and remain belted in."

Taking charge

Being a fire fighter, Sgt. Norris said he is trained to take charge in an emergency situation, which he did as he called on

his two airmen friends to help assess the situation.

"I had one shocked guy who kept standing up, and I put him on the rear deck with the crew and told him to stay put," Norris stated. "I crossed over and found an injured passenger slumped over in the lap of another. I instructed the helper on performing buddy care while I assessed the area for additional injuries."

Calling for help

Sgt. Norris then got the flight crew to radio for the disaster control group response to be in place once they got on the ground while still making the tough decisions on how to treat the other injured passengers.

"We're geared towards understanding that mass casualty accidents are going to have fatalities — we put that in context so we could deal with the situation," he said.

As the crew moved the passengers into the front and rear of the aircraft, CPR continued on those most severely injured until the loud, long bell began to ring signaling for emergency egress after landing. Emergency response crews were in place when the aircraft finally landed, ending a 48-minute nightmare for those on board. Sgt. Norris described the final landing as "surprisingly smooth considering we had no gear."

Maj. Jeffrey Jackson, 96th Civil Engineer Squadron commander and Sgt. Norris' boss, was not surprised his employee took charge of the situation.

All in a day's work

"We train our fire fighters as first responders so they are able to step into and assume control of a situation," said Maj. Jackson. "I'm very proud of him and the other fire fighters on board the C-130."

Sgt. Norris credits being trained beyond his own capabilities as the factor that enabled him to remain calm during this catastrophic situation.

"There was both joy and sorrow last December, I was excited to be going to Kuwait to do my duty but there's also the sorrow over this tragic loss of life. The honor and recognition bestowed on me is something I never would have imagined," he said.

"I'm in awe over my meeting the two fire fighters, praying with my wife, telling her not to worry before I left, having the other fire fighters on board — things just came together. I hope we learn from the accident and nothing like this happens again."

— Ms. Lois Walsh, AAC Public Affairs

They work hard for their bodies

It's the old story of the 98-pound weakling, but for 1st Lt. William Owens, it isn't a joke.

"I used to get beat up in high school because I was the runt," said Lt. Owens, future space analyst for National Air Intelligence Center, Wright Patterson Air Force Base, Ohio. "That's when I decided to start weight lifting."

Now with several titles under his belt, including 1996 Mister Natural Universe and 1999 All Armed Forces overall winner, Lt. Owens, now 5 foot 6 inches tall and 200 pounds, doesn't have to worry about the "bullies" at school anymore. He just has to worry about looking his best for the next bodybuilding competition.

"I spend about six hours at the gym each week and when I started lifting it was almost double that amount," said Lt. Owens. "It takes hard work, but it pays off."

"Imitation is the greatest form of flattery, and it's true in bodybuilding. People come up to me and ask how they can look like me. It's a great ego boost, and a long way from high school."

Lt. Owens says another reward of bodybuilding is being a good role model for young people who are interested in weightlifting.

"The best part of what I do is that I do it without chemical enhancement," he said. "I hope kids look at me and say, 'If you can do it, I can do it.' That's the greatest reward of all."

Lt. Owens is one of several people at Wright Patterson who compete in bodybuilding, but the only one who has had pro status with the World Natural Bodybuilding Federation.

Last year, he and three other competitors here were able to bring home a good amount of medals from the 1999 All Armed Forces competition. All four placed in the top 10.

"All of the bodybuilders here used to get together to work out every Saturday," said Lt. Owens, "but, unfortunately we've had schedule conflicts. We do try to meet occasionally and discuss new ideas and experiences."

Sharing experiences

Mr. Delbert Hickman, a senior computer analyst for Litton PRC, a base-affiliated contractor, had a great experience in a local competition.

He competed in the light heavyweight division in several previous bodybuilding competitions. His diet unexpectedly dropped him down to the middleweight division for the Oct. 14 Ohio Governor's Cup Drug-Tested Bodybuilding Championships at Lakewood, Ohio.

Mr. Hickman said he just hoped to make a good showing at

the event, which drew more than 130 competitors from across the country. Instead, he returned with a car full of awards in claiming not just his division, but the overall competition as well. "I happened to hit my ultimate peak," he said.

It's the type of Cinderella story people love. Yet the reality is Mr. Hickman has put in plenty of hard work and research during the last year to achieve his success.

A few weeks before the competition, Mr. Hickman attended a seminar where he learned how to use an optimal diet in training. Picking up tips on when to eat, how much, when to

increase carbohydrates and other information made a difference.

"The concepts are not hard to understand," he said. "But, each person is different so it's hard to understand what works for you individually."

His diet worked in a way that produced a body fat percentage below four percent without losing muscle. That dropped him into the middleweight category, for competitors between 156.25 pounds and 176.25 pounds.

After winning his weight class, Mr. Hickman moved onto the overall competition. Taking the advice of his wife LaDawn, he emphasized his hamstrings and glutes (buttocks).

"It is difficult to develop the glutes and hamstrings and get them looking cut," said Lt. Owens. "He had a good advantage over the other competitors showing off their legs or chests."

Mr. Hickman won the overall competition.



Mr. Delbert Hickman, a senior computer analyst for Litton PRC, a contractor at Wright-Patterson Air Force Base, Ohio, worked hard to win the Ohio Governor's Cup Drug-Tested Bodybuilding Championship.

Rewards weigh more than muscle

"There are a lot of people on base like Delbert with potential to bring home trophies. I would encourage anyone with drive and dedication to go for it," said Lt. Owens, "But, they have to be in it for the long-haul and understand that this is a life-style change. I don't know how many times I have said that and I can't stress it enough."

For anyone interested in weightlifting for sport or just for personal reasons, Lt. Owens gives some advice. "Don't be discouraged, the change comes slowly," he said. "But the rewards outweigh the hard work."

According to Lt. Owens, those rewards include: better self-esteem, a healthy body, faster recovery from colds, illness and injuries, and you can handle stress easier.

— Compiled from reports by Mr. Brett Tuner, ASC Public Affairs, and Capt. CK Keegan, AFMC Public Affairs.

Vietnamese pilot finds future in America after life-changing plane crash

Once a South Vietnamese fighter pilot flying combat sorties in Southeast Asia, he now lives a calmer, less dangerous life as a branch chief for the Avionics Systems Integration Division of 412th Test Wing at Edwards Air Force Base, Calif.

Even though he grew up during a tumultuous time, Mr. Loc Pham remains upbeat and positive about his life and his ever-changing future.

Mr. Pham was born in North Vietnam in 1950. He was only four years old when his family, once considered well-off, fled from the communist takeover. Making their home in South Vietnam, his family — his parents and six younger brothers and sisters — began life over, struggling in their newfound poverty.

“I liked airplanes so much that when I was very young I’d make my own toy airplanes or hang around the rich kids whose parents would buy them,” said Mr. Pham with a smile.

He was just 13 when he made a life-changing decision.

“I wanted to become a pilot,” said Mr. Pham.

Six years later, he volunteered for the South Vietnamese Air Force during his first year in college. Shortly after joining, he was sent to undergraduate pilot training at Randolph Air Force Base, Texas, and Keesler AFB, Miss., and then to combat pilot training at Hurlburt Field, Fla.

After 20 months in the United States, he was ready to return home and try out his new fighter skills flying the A-1 Skyraider in Pleiku, South Vietnam.

“It was a big challenge for a 130-pound guy like me to fly a tail-dragger like the A-1,” he said laughing. “It was a very high torque airplane — hard to keep it on our 60-foot-wide runway because the propeller went one way and the plane the other.”

His third flight back from pilot training was almost his last.

“We had to make a belly landing because our left landing gear collapsed during a practice landing and failed to retract or fully extend afterward,” he said. “Although, it was easier than a regular landing.”

Throughout the early ‘70s, Mr. Pham flew the A-1 Skyraider in more than 400 Southeast Asia combat sorties.

His last flight as a pilot was one that eventually carried him to safety and to a new way of life. Communism had slowly begun to take over each city as the communists made their way

toward the town of Bien-Hoa, where Mr. Pham served.

“Every pilot grabbed a flyable plane and began evacuating them,” said Mr. Pham. “We flew as many as we could to Saigon.”

Both main runways were unusable due to damages caused by the communists’ rockets; the taxiway was used for takeoff instead. While trying to evacuate, Mr. Pham crashed on takeoff.

“My ejection seat did not work,” he said. “Thankfully, I was not hurt when my aircraft pancaked in a ditch adjacent to the taxiway. During this time, the enemy’s rockets continued flying at us in the ditch.”

On April 29, 1975, after almost a full day of being bombarded with rockets, Mr. Pham and 12 others escaped in an A-1 from Saigon to the U.S. Air Base Utapao in Thailand. A day later the fall of South Vietnam became known around the world.

“I escaped right at the end,” said Mr. Pham. “We became refugees by default.”

“Several members of my squadron who did not get out at the end spent seven to eight years in what the communists called a ‘re-education camp.’”

He added, “I had a cousin, a lieutenant colonel in the South Vietnamese Army, who spent 11 years in a communist camp in North Vietnam.”

Mr. Pham was then moved from Thailand to a refugee camp in Guam and one month later to another in Fort Chaffee, Ark.

“The Americans took good care of us in the refugee camps,” said Mr. Pham. “We stayed in tents, but were glad to have escaped Vietnam.”

While in the refugee camp, he contacted his former Air Force instructor pilot stationed at Columbus AFB, Miss.

“He sponsored me out of the camp and got me on my way,” he said. In 1977, he met his future wife, Xuan, also a former Vietnamese refugee. And in 1982, Mr. Pham and his wife became American citizens. After graduating college in 1983, he began working at Eglin Air Force Base, Fla.

“It’s been interesting how I’ve been associated with aerospace — I was here before for pilot training and then started working for the Air Force.”

“I feel I was very fortunate to get out of Vietnam at the age I was. It was much easier to cope with difficult situations when I was young and single,” Mr. Pham said. “I really consider myself lucky to have gone to a country that provides so many opportunities. I owe a lot to my adoptive country, my home now, and the U.S. Air Force.”

With his life firmly settled at Edwards, Mr. Pham still occasionally socializes with other former Vietnamese pilots. His siblings also now all live and work in the United States.

— Staff Sgt. Stacey McCausland and Ms. Sarah Hardman, AFFTC



He remembers the Korean War

To some, it was a police action, to others, it has become the forgotten war. But to Mr. Don Oulton, an attorney in the base judge advocates office, Hanscom Air Force Base, Mass., the Korean War was as fierce a conflict as any in history.

When the war between communist and non-communist forces in Korea began 50 years ago, on June 25, 1950, Mr. Oulton was a high school student and part-time golf caddy in Kingston, N.Y., contemplating a career as a golf pro. After graduation, he even had a job lined up as a pro with a golf course in Hollywood, Fla., that was to begin November 1951. But fate intervened in September 4 of that year when he received notice he was drafted into the Army.

Going to Korea

Following 16 weeks of basic training, Private Oulton was sent to Korea as an infantryman.

"When the war began in 1950, the Americans were in bad shape supply-wise," he said. "But by the time I got there, we were well supplied — in fact we were probably the best equipped and one of the best trained forces ever."

He was soon recruited as a forward observer for an intelligence and reconnaissance unit, and found himself in Chorwon Valley, at an outpost about a mile and a half in front of the American troop line, where he served for nearly five months.

The enemy, a well-trained unit known as the 15th Chinese Communist Forces, was about 400 meters away, with snipers to pick off anyone who stuck their head out of the trenches.

"I served with a group of Ethiopians, and the only other guy that spoke English was their lieutenant," Mr. Oulton said. "Because we were in a very flat valley, the enemy had the high ground, and we were sitting ducks."

Later, he was assigned to the Army's 7th Infantry Division, 32nd Infantry Regiment. His unit's objective was to capture a 598-meter hill known as "Triangle Hill."

"My job was to direct enemy counter fire and I was in the middle of the fighting," he said.

Losing friends

A fierce battle ensued, and his unit lost 1,500 men in three days. As a result, his division was transferred to the "Baldy" Pork Chop Hill sector. Other American divisions continued the battle where ultimately 9,200 Americans and an estimated

19,000 Chinese personnel were listed as casualties. According to Mr. Oulton, the Army's history of that battle states it was the third highest casualty loss of the Korean War.

Following the battle, he then helped carry bodies of American soldiers wounded in the fighting.

"Because I had been there for a while and knew many of the troops, a lieutenant from the grave registration service asked me to help identify some of the bodies and there were about 450 of them," he said.

"I think I identified maybe 20 guys. But, in wartime, you get so hardened. When I got back in the ranks, a hot food truck had just pulled in. All I had eaten for the past few months was C-rations. I ate a lunch that day that was about the best meal I'd ever had. Later, I thought how callous that was, but in a war, you do what you have to do.

"In Korea, if you were in front of the line, you got one point a week for rotation back to the States," he said. "On Jan. 4, 1953, I was rotated home with 38 points earned in nine and a half months."

Then Sgt. Olton was assigned as a platoon sergeant in the honor guard at Arlington National Cemetery, where he finished out his Army stint, having earned the rank of staff sergeant.

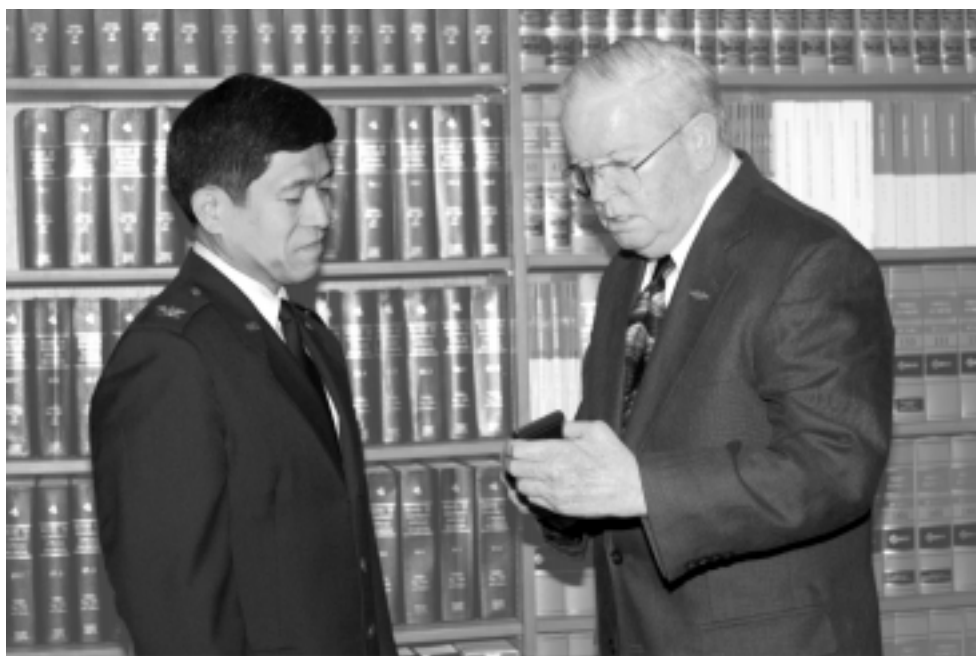
"Back home, a lot of people were unaware of the war in

Korea," Mr. Oulton said. "Just about all my friends' older brothers had fought in World War II, so Korean veterans were really nothing special. My own brother had fought in World War II in the Navy, and was in London during the Blitzkrieg, so to him, there was no horror I could have experienced that was as bad as he had seen."

Like many other Korean veterans, Mr. Oulton put the war behind him. Through his persistence and with help from the G.I. Bill, he was able to attend Boston University and earn a law degree. An armistice on July 27, 1953 ended the fighting in Korea, but a formal peace treaty has never been completed and U.S. forces are still stationed there.

"My good friend, Mr. Jerry Sweeney, a tax lawyer I had known for 22 years was doing my taxes during the late 1980s and I asked him if I could deduct my contributions to the Korean War Memorial," Mr. Oulton said. "He asked me, 'What are you doing with that group?' I had known him 22 years and he never knew that I was in Korea. Then he said, 'Hey, maybe

— Continued on page 16



Mr. Don Oulton, a Korean War veteran and an attorney in the Electric Systems Center, Hanscom Air Force Base, Mass., Judge Advocates office, shows Col. Lester Katahara, ESC Judge Advocate, his Korean War Service Medal. (USAF photo by Tech. Sgt. Scott Lewis)

“An American tradition carried on with heart and soul in every song”

He was nervous as he stepped into what he called the “shower stall,” a small room with a sliding glass door. With his heart pounding in his chest, he placed the headphones on his head, waiting for the drum’s beats which would signal him to begin playing.

The recording studio was silent in those few seconds and Capt. Brad Jessmer, plans and resources officer for AFMC Public Affairs, prayed his fingers would do their best work ever.

“I have never been so nervous in my entire life,” said Capt. Jessmer. “All I could think about was that this album would represent me and my banjo playing for the rest of my life.

“I wanted perfection.”

As the bluegrass music flowed through the headphone, Capt. Jessmer mechanically added his banjo part to the others already recorded.

“I was terrible,” he said. “I stopped constantly and I was never satisfied with my work.”

Capt. Jessmer said after a while, one of the band members watching yelled out, “Get the boy a beer.”

“It made me laugh and I realized that I needed to relax and have fun with it,” he said. “It’s just like the entertainer on

stage who just goes through the motions and isn’t having fun. The audience can see right through that.”

It took a little while for Capt. Jessmer to find his “groove,” but he said it helped to have the band cracking jokes to help him relax and to have his fiancée there with words of encouragement.

“I couldn’t have asked for better support,” said Capt. Jessmer. “I have been lucky throughout my life with the support from family and friends.”

In the beginning

He was eight when he picked up his first instrument.

“I don’t think you can count the time when I was five and I banged on my mom’s mandolin,” said Capt. Jessmer. “That definitely wasn’t music.”

After playing with a youth orchestra for a while, Capt. Jessmer decided to move from classical violin to the banjo.

“I got bored with the violin and orchestra music,” he said. “There’s no improv. You play what’s on the sheet of music and that’s it. I wanted freedom, and I found bluegrass gave that to me.”

Heaven on earth

With mom on mandolin, dad on bass, brother on guitar and Capt. Jessmer on banjo, the family group called the Jessmer Brothers toured the East Coast playing bluegrass festivals.

“My family was the greatest influence in my life. I am really proud and lucky to have such a wonderful family,” he said.

Through high school and college Capt. Jessmer competed and won banjo competitions that helped him pay for college. Today, he still tours as much as his work schedule allows.

Although, this was his first chance to record and he hopes to have more opportunities, he said he doesn’t expect



he’ll be able to make it a full-time career.

“I know I won’t get rich from playing the banjo, but what I learn and what I get out of it enriches my life,” he said. “For example, I remember driving 12 hours one way to play with a band and I got paid \$75.00. It was just about enough to pay for my food and gas and maybe lodging. It was then I realized how much I love the music.

“When I play, it’s like my own piece of heaven on earth.”

Learning along the way

“God has given everyone talents,” said Capt. Jessmer. “I believe it’s our responsibility to develop those talents. We often learn some of life’s greatest lessons in the process.”

One such lesson is the reward of teamwork.

“In bluegrass you can’t have ‘show-boats.’ It is a team effort,” he said. “If I jump up in front of people and play nothing but ‘hot licks,’ I will lose the majority of the audience and discourage the guys I’m with,” he said.

“When you learn to work as a team you can almost read each other’s thoughts. The audience can see a group that works together and they respond to it. That’s what it’s all about.”

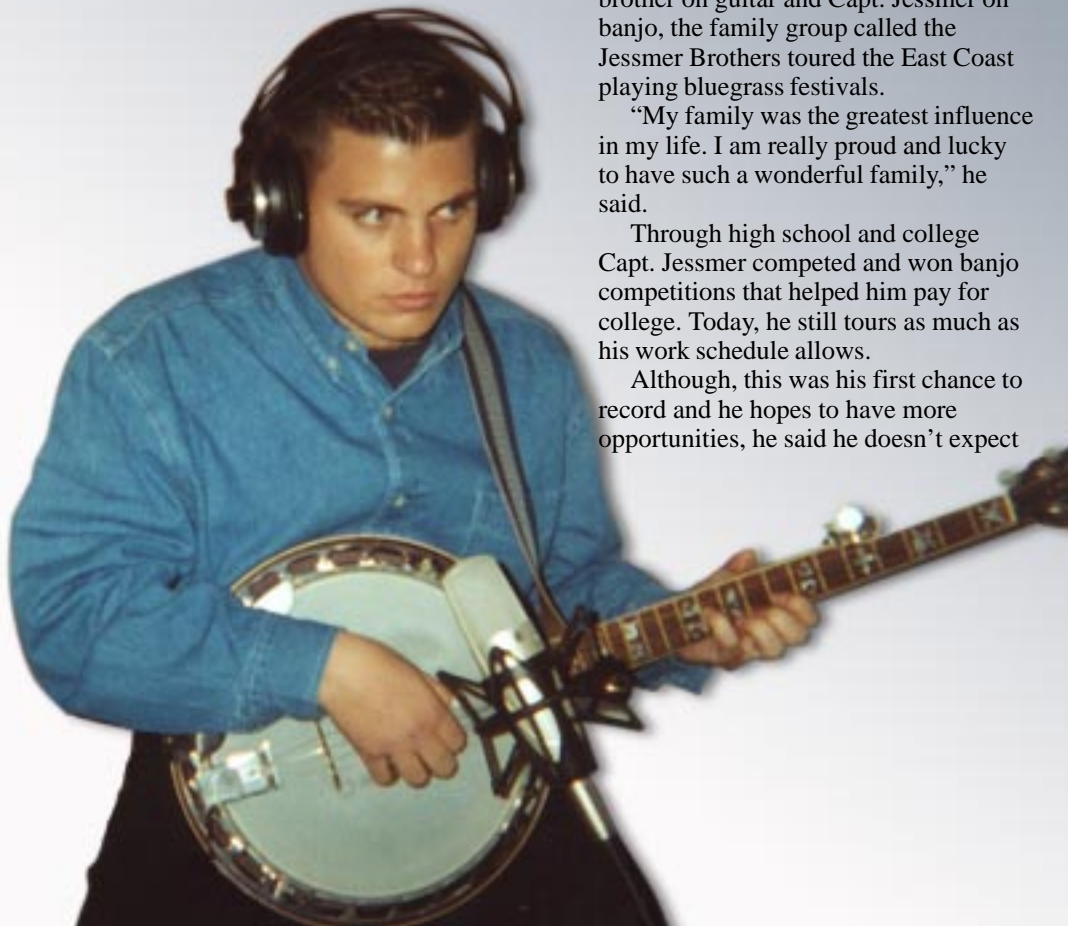
Capt. Jessmer said the group he is recording with works really well together and audiences respond to them and their style of music.

“We play a more progressive urban style of bluegrass that gets away from the ‘hillbilly’ stereotype most people think of,” said Capt. Jessmer. “We attract younger crowds as well as the traditional fans with the jazz influence we have. Compared to traditional style, we’re almost like night and day.

Capt. Jessmer plans to finish his recording this month, with the album’s release expected early next year.

“There is still a lot of work to be done,” he said. “But, I can’t wait to hear the finished product.”

— Capt. CK Keegan, AFMC Public Affairs



Day job gives artist lots of ideas

Is he an artist who sometimes wears a uniform, or a career aerospace professional who dabbles in art?

For now, Lt. Col. Mark Pestana, an Individual Mobilization Augmentee with Space and Missile Systems Center, Los Angeles Air Force Base, Calif., considers aerospace his priority, but admits that it's stage one of his career.

"The greatest accomplishment of my life professionally was earning my Air Force pilot's wings," he said. "And for now, my prime interest lies with my involvement in aerospace research, with NASA and the Air Force. Of course when I retire from that I won't really retire, because I hope at that point my art 'career' will move ahead."

His art accomplishments are already impressive. He's designed the art for eight space shuttle mission patches. Three of his paintings are in the Air Force collection at the Pentagon, while a painting depicting the Vostok-1 launch of Yuri Gagarin, the first human in space, hangs at the Mission Control Center near Moscow. Pretty amazing considering a previous Air Force assignment was flying reconnaissance missions during the Cold War against the Soviet Union.

"Flying Cold War reconnaissance missions around the world was very rewarding and exciting," he said. "It was an important part of history and I'm proud to have played a role in it. It's also exciting to see my work go into space on the pressure suits of shuttle astronauts."

Early beginnings

Col. Pestana's own history with art goes back as long as he can remember. "I've always enjoyed drawing. My mother's an artist. When I was 13, I borrowed her equipment and started.

Although he's had countless hours of formal training for his various aerospace assignments, he's never spent a minute in formal art training.

"I haven't taken any art classes," he said. "I've just kept drawing and painting. As with any skill, the old adage 'practice makes perfect' is the advice to follow.

"A very important part of this learning is my membership in the American Society of Aviation Artists. I've been very fortunate to receive the critiques and mentorship from some of our nations' greatest aviation artists."

His practice has certainly paid off in terms of personal satisfaction, and a goal is to have it pay off financially as well.

"I'd like my art to be in demand to the point where I can rely on it for income," said Col. Pestana. "That's tough, since there's lots of talent and competition out there, and art, being a very personal thing to the buyer, is difficult to sell at a productive rate. I've made some money from my art but certainly not enough for me to quit my day job."

He works hard for his money

That day job is with NASA's Dryden Flight Research Center near Edwards AFB, Calif., flying worldwide Earth Science missions on NASA's DC-8 "Flying Laboratory." He's flown atmospheric sampling missions over the South Pacific, through hurricanes in the Atlantic and sampled ozone chemistry over the Russian arctic.

Quite a contrast for someone who began his Air Force career as an orbit analyst at NORAD's Cheyenne Mountain Complex keeping track of Soviet space activity. He's also been involved with Department of Defense space shuttle missions and the International Space Station Program.

"Every one of my assignments has been great," he said. "At SMC, I've been fortunate to be involved in the highly successful Delta II launch program, supporting Global Positioning System and other satellite programs. My current assignment, with involvement in developing air and space integration initiatives, utilizes both my aviation and space experiences."

Work is inspirational

Almost all of his aerospace experiences have given him ideas for paintings.

"I see things to paint every day. At Edwards, there is no shortage of subject matter with NASA and the Air Force conducting flight research on many projects. I'm also inspired by the work going on here. I have dozens of paintings 'in my head,' so to speak. I can imagine many different scenes and I wish I could find the time to get them all on canvas.

"As a NASA engineer for the Space Station Program, I had fantastic experiences of going to Moscow several times and working with the Russians. I went to the once-secret Russian Air Force base 'Star City' where cosmonauts are trained. I've been inside the Soyuz and Mir simulators and also to Mission Control Moscow during one of the Shuttle-Mir dockings. I've also been to their Armed Forces Museum, where the wreckage of Gary Powers' U-2 is proudly displayed."

— Tech. Sgt. Tim Dougherty, SMC Public Affairs



Lt. Col. Mark Pestana is surrounded by his artwork. Currently an Individual Mobilization Augmentee at Los Angeles Air Force Base, Calif., he was motivated to pursue his art avocation after competing in the 1990 USAF art competition. He won first place with his entry "self portrait," depicting an Air Force T-38 in early vertical flight, a memorable experience from his pilot training.



Former Marine resumes his military career in the Air Force

Senior Airman Tim Beachy recently gave up a \$45,000-a-year job with the U.S. Postal Service to join the Air Force. This runs counter to the much-publicized trend of servicemen leaving the military lured by high-paying jobs in today's robust economy and it may portend better times for Air Force recruitment.

Following four and a half years in the Marine Corps, Airman Beachy left in 1993 when defense cutbacks eliminated his chosen career of logistics planning.

"They closed up my career field," he said. "When my re-enlistment came up, I couldn't re-enlist in the job field I wanted."

In 1994, with a new wife and baby in tow, he found a good job with the U.S. Postal Service in Tampa, Fla. He rose to a managerial position with a transfer to the post office in Jacksonville, N.C., in 1996. Although he enjoyed his job, he never gave up his desire for the military life.

He had joined the Air Force Reserve in Florida and transferred his reserve status to Jacksonville. "I was talking to an Air Force recruiter," he said. "I always wanted to be in the Air Force. At the time the Air Force was not accepting people, it was downsizing on the total force."

Finally, this year he found that his career field opened up and the time was right to join the Air Force. With Congress appropriating more money for military lifestyle improvements,

"the benefits of being in the military have gotten better in the last 10 years," he said. "If I didn't think it would get better I wouldn't have done it."

In May he signed up and on Aug. 15 he was sworn in. He moved to Robins Air Force Base, Ga., on Aug. 29 and is now a logistics planner with the 5th Combat Communications Support Squadron.

Although he took a pay cut, he and his wife agreed that money isn't the sole consideration. "I make less take home pay, but I have the opportunity to serve my country," he said.

He can also expect greater opportunity for advancement. Thanks to his prior service and skill level, "I can test for promotion in April. Another benefit is Uncle Sam paying my tuition," he said. He is currently working for a bachelor's degree in management with the goal of becoming a commissioned officer.

"I feel it is worth it because of the reward of serving my country for 20 or so years," he said. "Then after I retire I will still be young enough to go back to work in the civilian arena and hopefully get two retirements."

Finally, the military life has intangible benefits that are missing in civilian life. "It's the structure of the lifestyle. You don't get that in a civilian job. I like the discipline and the family atmosphere. That's a standard I like to live by," he said.

— Mr. Hal McKenzie, WR-ALC Public Affairs

— Continued from page 13

I'll join that group.' It turns out he was in the Marines and we both were there about the same time. After that, we told each other combat stories for a long time.

"The story illustrates why Korea was the forgotten war," he said. "Once we got home, we never talked about it."

Mr. Oulton had a chance to visit Korea while traveling to Japan on government business in 1994.

"I went to Seoul in 1951 and just about every building was shot up," he said. "In 1994, everything was rebuilt. That's when I realized we had actually won that war."

During the 50th anniversary of the Korean War, the Repub-

lic of Korea announced that it will provide the Republic of Korea War Service Medal to eligible U.S. veterans of that conflict, or their surviving next of kin. Mr. Oulton had planned to visit South Korea along with Mr. Sweeney and other Korean War veterans, but couldn't make the trip due to health reasons. While there, 12 of his friends received the medal in a ceremony presided over by a Korean four-star general. The general had a medal for him as well.

"Getting the medal was great," Mr. Oulton said, "but I'm going to have to fill out some paperwork to truly say I was awarded the medal. But, that's some other day's project."

— Mr. Kevin Gilmartin, ESC Public Affairs



The Olympics in Sydney, Australia, are over, but two employees of Tinker Air Force Base, Okla., keep the spirit of the games alive year-round. Mr. Noah Brooks, 55, and Mrs. Carol Brooks, 52, are a husband-and-wife team who brought home the gold from the 2000 Senior Olympics in Tulsa.

This was her third year in the Senior Olympics and his second. Together, their softball team won the gold medal in the State Senior Olympics in the 50-55 age group. They will compete next year in the national-level games.

In track and field events, they won six more gold medals. They both insist that the reason they play isn't so much for the medals as it is for the camaraderie and sportsmanship.

"You have to qualify at the state level in an event to represent Oklahoma at next year's nationals," said Mrs. Brooks. "We qualified in our age division for softball and in several track and field events. You compete against people within your own age group — groups are separated by five-year increments. The Oklahoma City Queens is a women's softball team and my husband is our coach. It's great for people our own age to get together. We don't focus on the competition as much as we play for fun."

The team consists of many people from across the work force: teachers, nurses, clergy, civil service, hairdressers and more. Many are retirees who keep themselves fit through team sports and honing their competitive edge.

Talent isn't in short supply, the Brooks said, but neither is determination. Some of the senior athletes accomplish feats that surprise the crowds. Mrs. Brooks knows of a blind man who runs in the 50, 100 and 200-meter races who can outrun most people. Mr. Brooks said there's a woman in her 60s on his softball team who pole vaults. Athletes such as these can inspire everyone who watches or plays in the games.

Involvement is a reward in itself, Mr. Brooks said. Both he

and his wife agree that they've always been on a winning team. Their athletic spirit doesn't detract from their duties in the air logistic center where he is an equipment specialist for the propulsion management directorate and she is a management analyst for the airborne accessories directorate. The Olympic motto is "citius, altius, fortius," — "faster, higher, stronger" — and these words can be applied to any individual — or military aircraft.

"Since I started to work here, I've been involved with the Tinker softball leagues," Mrs. Brooks said. "Our supervisors, friends and family have been incredibly supportive. We have six children who are amazed by how busy we are. They say we make them tired."

The Brooks don't claim to be super athletes — just two people pursuing their passion for sports. They say the exercise is great and the quality of teammates and fellow athletes is even better.

Both husband and wife compete in marathons and distance running on a regular basis and stay in shape with exercise.

"It's never too late to get started," said Mr. Brooks, "but you need to start slow. One of the best things about the Senior Olympics is that there is always somebody ready and willing to offer a helping hand. The accent of the games is on sportsmanship as well as skill."

The Brooks have won more than 25 medals. Next year will be the first time either has ever played in national events. Both hope that their accomplishments can motivate their peers to get involved with sports.

"We need more participants — more people our own age — getting involved," said Mrs. Brooks. "You don't have to be in the best shape. We're both interested in maintaining our health as long as we can. Come out and try it! What have you got to lose?"

— Mr. Andy Stephens, OC-ALC Public

A Phantom farewell

Never again will this phantom's thunderous engines shatter the silence overhead, instilling fear in the enemy or drawing awe from an audience below.

The spirit of this Air Force F-4, serial number 66-8728 remains strong however — strong enough to inspire a flood of emotions from Mr. Bob Schuler. A retired Air Force crew chief, Mr. Schuler returned to the side of this aircraft 31 years after he last saluted and watched her roar down the runway, launching for another bomb run over North Vietnam.

The aircraft Mr. Schuler crewed while stationed with the 8th Tactical Fighter Wing at Ubon Air Base, Thailand, is now stored at the Aerospace Maintenance and Regeneration Center, Davis-Monthan AFB, Ariz. Col. Reed L. Roberts, AMARC commander, accompanied Mr. Schuler during his October 24 visit to the center.

"Unlike pilots who fly so many different aircraft, a crew chief develops a special relationship with the plane he works on," Mr. Schuler said. For almost a full year, he prepared 66-8728 for its daily mission of streaking through the skies and dropping bombs over North Vietnam.

Almost as if succumbing to a gravitational pull, Mr. Schuler reached for the left wing of the D-model aircraft, smiling as he gently touched the now-oxidized paint and noticing the aircraft's mission markings have long-since been painted over. He quietly knelt under the wing, looking for the small, tell-tell signs of repair only he would recognize.

"I guessed the pieces of skin I left on this plane would be long gone by now," Mr. Schuler said. "Bombing wires hung from the pylons, making little holes in the flap we had to repair," he said, feeling for Bondo-concealed holes underneath the aircraft's aft flap. He wasn't really surprised to find that years of maintenance had removed the defects he had once repaired.

An aircraft takes on its own personality and a crew chief gets vibes from it, he explained. "I realize that sounds a

little weird, but a plane becomes a living thing to the crew chief. It doesn't talk back to you, but it does get to the point to where you can listen to it and you know what to look for."

Although Mr. Schuler called his time in Thailand a "plain vanilla tour with three bomb runs a day," seeing the aircraft again brought back memories. Still smiling from the reunion with his plane, he recalled an evening back in Thailand spent with buddies watching the Notre Dame and University of Southern California football game, drinking grape Kool Aid and eating an ill-gotten chow hall cherry cobbler. His smile turned a bit wistful as he wondered aloud whatever happened to his friends from so many years ago.

Mr. Schuler's reminiscent love and respect for 66-8728 has landed him what he considers the job of a lifetime — maintaining an F-4D and preparing it for flight. He's now one of several volunteer crew chiefs selected to maintain the Collings Foundation's F-4D, flown by retired Brig. Gen. Steve Ritchie, who was an Air Force ace in the Vietnam War.

The Collings F-4 retired to AMARC in 1990, one year after 66-8728, but it received a reprieve from Congress in

1999 under the Strom Thurmond National Defense Authorization Act.

Since its regeneration, Gen. Ritchie has flown the Collings' F-4 more than 70 times at airshows and similar events, making it a flying tribute to all veterans. Mr. Schuler was assigned as the Collings' crew chief for a recent event in Scottsdale, Ariz., and said he jumped at the chance to accompany Gen. Ritchie to Tucson. The Collings plane was on display for Davis-Monthan's "Aerospace and Arizona Days" airshow, November 4 and 5.

"I knew 66-8728 was in storage at AMARC, and I knew I'd probably never have a better chance to see her — probably for the last time," Mr. Schuler said.

"It really meant a lot to me." Along with photographs he took to complete his photo album, he departed AMARC with thoughts similar to those voiced by Col. Roberts.

"They say there are a million stories to tell in a big city," the commander said. "But just think, if these aircraft could talk, imagine the stories they could tell."

Mr. Schuler's F-4 is slated for disposal this year. "It's sad to realize this particular F-4 will never fly again.

"On the other hand, there's a great deal of satisfaction in knowing 66-8728 successfully responded when called on, contributed to the accomplishment of many critical missions and always returned safely home with her pilot.

— Ms. Terry Vanden-Heuvel, AMARC Public Affairs



Above: Col. Reed Roberts, AMARC commander, Mr. Bob Schuler and retired Brig. Gen. Steve Ritchie stand in front of Air Force F-4 66-8728. Right: Mr. Schuler looks for signs of repairs he had made years ago while crew chief on this airplane.



Taking care of our own

While recovering from injuries she received from a drive-by shooting in 1999, Ms. Deborah Flores was accustomed to receiving get-well cards and flowers from countless visitors.

But one day, she received some completely unexpected gifts — 2,479 hours of donated medical leave time and more than \$9,000 in donations to help cover her medical bills.

Ms. Flores works at Kelly Air Force Base, Texas, Financial Management Directorate as a secretary. At the time of the shooting, she worked in the 76th Security Forces Squadron as an assistant supervisor in pass and registration.

Ms. Flores said when she received the gifts of leave and money, she was shocked by the generosity. “I couldn’t believe people were that nice or wanting to help me that much.”

Reaching out to help others

Ironically, she had donated hours of leave time in the past to people who needed extra time for medical emergencies.

She received leave and financial donations from Kelly; Lackland AFB, Texas; Randolph AFB, Texas; Brooks AFB, Texas; Wright-Patterson AFB, Ohio; Fort Sam Houston, Texas; Kirtland AFB, N.M.; and Hill AFB, Utah.

Mr. Arthur Senecal, 76th Security Forces administration chief, and Mr. Dan English, security director, were instrumental in collecting the leave for Ms. Flores.

They advertised about Ms. Flores’ need through local e-mail alerts and an article in the base newspapers. They also contacted their counterparts at different bases.

“I thought to myself, ‘This is great, maybe we’ll get her *some* time,’” said Mr. Senecal. He called the response “phenomenal,” but said that additional work was needed to help Ms. Flores retain the donated leave. At the time of her accident, she was working a temporary position that was scheduled to expire in September 1999.

Taking it a step further

“The rules of leave are, when an individual leaves civil service, any unused donated leave is recomputed in the system and given back to the donors,” he said. “Ms. Flores had enough leave to carry her to May 25, 2000.

“I’m sure the people who donated the leave time would rather she use it than to get it back. Col. Bobbie Wright, 76th Air Base Wing vice commander, worked it so that a new position could be created for her to work for me.

“As a result, she rolled over into the new position and stayed on leave status until May this year,” Mr. Senecal said. “She transferred to her new job in September this year.”

Mr. English, then a technical sergeant serving as the noncommissioned officer in charge of pass and registration, set up a special fund for Ms. Flores. This was used to deposit donations collected from individuals and fund-raising events.

He also organized a major fundraiser that netted the first \$3,000.

As impressed as Mr. Senecal, Mr. English and others may have been by the generosity hundreds of donors displayed to Ms. Flores, they marveled as well at her resiliency.

More than a bad hair day

Ms. Flores was shot twice in a drive-by shooting Feb. 28, 1999, while visiting her brother. The second bullet split the top part of her left ear. But the first bullet did the damage. It penetrated her cheek an inch under her left eye and traveled around inside her skull before exiting behind her left ear.

Doctors said the bullet caused significant damage to the temporal lobe on the left side of her brain. It also destroyed much of her left inner ear, causing permanent hearing loss.

As devastating as the injuries sound, Ms. Flores said she felt nothing when she was shot. “I felt the sensation that someone was messing with my hair,” she recalled. “I thought I was having a bad hair day. After I was shot, I was even trying to comb my hair.”

She was taken to the hospital where she underwent the first of six surgeries, including two brain, one eye, ear, reconstruction and neck surgery, spending more than two months in the hospital. Two more surgeries are still necessary.

Then she spent four months in a rehabilitation center, which included physical, speech and social therapy.

“I had to relearn how to do everything — speak, walk and think,” she said. “I felt I was going to kindergarten and getting started again, since I couldn’t remember how to do so many things.”

Although she was scheduled for a year’s worth of rehabilitation, she said she felt ready to return to work after three months.

“Even after waking up from my coma in the hospital, I kept thinking, ‘I’m late! I have to get to work!’” she said. “I felt ready to return to work after three months of rehab. To me, I felt like I was wasting my time and wanted to return to work.”

Ms. Flores feels that the injury, as trying as it was, was a blessing in disguise. “I’m not unhappy about anything that happened. I feel it brought me closer to God. I have a better understanding of who He is now. I’ve had the opportunity to speak at churches and schools and share my experiences with them.”

Ms. Flores is presently about to complete her second associate’s degree and will be working on a degree in business management from Texas A&M. This month, she’ll be leaving Kelly to begin a new job in Child Support Enforcement for the State of Texas. But before she leaves, she wants to let people know how appreciative she is of the help they gave her.

“I want to say thank you from the bottom of my heart, and to let them know I’m back to work,” she said.

— Mr. Richard Zowie, SA-ALC Public Affairs



After surviving a near-fatal drive-by shooting and spending months in surgery and rehabilitation for brain and facial injuries, Ms. Deborah Flores returns to work. She said she is grateful for all the people at various Air Force bases for donating sick leave hours and money to pay her medical bills.

Street renamed to honor late congressman

ROBINS AIR FORCE BASE, Ga. — Base leaders, local dignitaries and former base commanders gathered Sept. 29 beneath a clear blue sky in crisp fall weather to give Second Street a new name — “Richard Ray Boulevard.”

The ceremony at the corner of Page Road and Second Street honored the late congressman for his unstinting support of the base.

Master of ceremonies Col. Michael Mickelson, director of public affairs for the Air Force Reserve Command, recounted highlights of Rep. Richard Ray's 40-year public service career. He served in the Navy during World War II, was a two-term Perry city councilman, Perry mayor, administrative assistant to Sen. Sam Nunn, D-Ga., and U.S. congressman from 1982-1992.

Maj. Gen. Dennis G. Haines, Warner Robins Air Logistics Center commander, quoting Winston Churchill, said “‘We make a living by what we get. We make a life by what we give.’ He enriched all of us by what he gave to the state, the base and the nation.”

Congressman Ray made a “big difference to the military” while on the staff of the Senate Armed Service Committee and as a member of the House Armed Services Committee.

He was instrumental in passing a 1981 bill prohibiting contracting out unless the base commander approved and the 1992 act that ensures 60 percent of the money spent on depot maintenance is retained by depots, Gen. Haines said.

— Reported by Mr. Hal McKenzie, WR-ALC Public Affairs

ARIA comes home for retirement

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The last E-model Advanced Range Instrumentation Aircraft, or ARIA, flew its final mission Nov. 2 from Edwards AFB, Calif., to Wright-Patterson, where it is scheduled to go on display at the U.S. Air Force Museum.

In coming to the base, it actually returned to its former home. The 4950th Test Wing, which flew the ARIA, used to be stationed here.

While stationed at Wright-Patterson, the ARIA supported well known missions for the space shuttle, Voyager I and II, Galileo, Mars Observer, Peace-keeper and Tomahawk.

ARIA aircraft still stir the blood and memory of those who flew its unique missions to support U.S. space and missile launch programs, said Lt. Gen. Robert Raggio, commander of Aeronautical Systems Center. Gen. Raggio flew the aircraft as a test pilot for the 4950th TW, from December 1975 to June 1979.

Gen. Raggio and Edwards' flight test center Commander Maj. Gen. Richard Reynolds flew with the E-model ARIA to Wright-Patterson.

Today, all but two of the fleet have been retired, and these active EC-18s are

in line to retire in the next two years.

— Reported by Ms. Susan Barone, ASC Public Affairs

A day for special children

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — For the fifth straight year, men and women of Wright-Patterson will host Operation Christmas for children with physical and mental handicaps from local area schools Dec. 14.

Several local school systems will bring in more than 200 students with handicaps for the party.

“The big event of the day is when Santa arrives with his elves in a Lear jet,” said Ms. Betty Johnson, AFMC Civilian Personnel and Programs. Volunteers serve lunch provided by local businesses and each child will receive a gift selected just for them.

Animals from the pet therapy clinic and clowns will be on hand to entertain the children, and McGruff the Crime Dog and his partners from security forces will educate the children on safety and crime reduction.

“A thing as small as a balloon given by a clown to a child can have great impact,” said Ms. Johnson. “A request for a specific color balloon from a child who has not spoken in two years is an example of the many rewards our volunteers receive. That makes it all worthwhile”

— Reported by Ms. Estella Holmes, AFMC Public Affairs

Airborne laser balloon featured at International Balloon Fiesta

KIRTLAND AIR FORCE BASE, N.M. — Floating just above the water, a balloon representing the Airborne Laser program made a practice flight in preparation for the Kodak Albuquerque International Balloon Fiesta Oct. 7. One of approximately 1,000 balloons this year, this balloon featured an artist concept of an aircraft-mounted laser destroying a missile in flight.

The balloon was flown throughout the nine-day fiesta drawing attention to the Air Force's efforts to put together a speed-of-light defense against Scud-like missiles, a program managed at Kirtland

Also featured at this year's fiesta was a booth that explained the work taking place on the airborne laser and two performances by a combo from the Air Force Band of the West, a group based at Lackland AFB, Texas.

— Reported by Mr. Rich Garcia, AFRL Public Affairs



"Night shades" to thwart laser's blinding effects

New aircrew laser eye protection that Air Force Research Laboratory scientists at Brooks Air Force Base, Texas, have validated as reliable may soon earn the moniker "night shades" for their nighttime capability of shielding Air Force aviators from the potentially harmful glare of battlefield laser weapons.

Clear Laser Eye Protection for Infrared, or CLEPIR, spectacles is the latest generation of optical technology specifically designed to protect the force without restricting visibility.

"As the number of laser wavelengths increased, the dyed tinted lens technology solution became unsatisfactory because it is too dark to see through at night," said Maj. Kent Harrington, AFRL's laser eye protection program manager for the Human Effectiveness Directorate's Optical Radiation Branch.

A better solution

"The Air Force began looking for a better solution that would still protect against the threat wavelengths, but allow pilots to perform their missions during night operations," Maj. Harrington said.

Dyed lens technology used in tinted in-helmet visors and spectacles absorbs rather than reflects laser light. "The first ones we fielded were visors that protected aircrews from course designators and navigation finders," said Lt. Col. Leon McLin, Jr., AFRL Optical Radiation branch chief.

"The Barnes visor didn't work," said Maj. Harrington of the device used by the Air Force since the mid-1980s that limited aircrews' ability to see cockpit

instrumentation.

For decades AFRL's Optical Radiation Branch and its optics technology predecessor, the U.S. Air Force School of Aerospace Medicine's, or USAFSAM, Ophthalmology Department, have conducted pioneering laser eye protection research.

The team had known about and worked with stacked dielectric film technology used in these spectacles years before the 311th Human Systems Program Office asked them to evaluate commercial spectacles that protect against infrared laser energy.

"Dielectric stacks have been around for the last 20 years, said Maj. Harrington.

Multi-thin layers



Second Lt. Kevin Wegener, Air Force Research Laboratory laser safety engineer, tests the Clear Laser Eye Protection for Infrared spectacles at the Air Force Research Laboratory located at Brooks Air Force Base, Texas. (Photo by Mr. Rudy Purificato)

"It's commonly used as a coating on camera lenses and in glass optics. These stacks are multi-thin layers that interfere with laser light by reflecting specific

wavelengths."

These spectacles use dielectric films stacked in alternating quarter wavelength layers, effectively attenuating weakening invisible "out of band" light in both infrared and ultraviolet frequencies.

"Pilkington (Optronics) is the only company that puts dielectric stacks on polycarbonate, which is more impact resistant and shatterproof," said Maj. Harrington.

Interim solutions

AFRL scientists said CLEPIR is only an interim solution because it does not provide comprehensive laser eye protection based on its inability to block visible laser light. Brooks acquisition specialists said this limitation could be overcome by using the new spectacles in combination with tinted helmet visors during daytime operations.

Evolving technologies

"Technology is evolving. We have to stay ahead, said Col. McLin. "We've been working for the past three years on wrap-around (peripheral) laser eye protection."

These spectacles do not provide wrap-around protection, but future generations of laser eye protection will feature it.

"These frames have improved nose pads, and integrate better with visors and gas masks, he said. "The eye wire used in the frames make the spectacles safer because it prevents the lenses from popping out."

New challenge

The next challenge is developing eyewear that protects against multiple laser wavelengths. "It's called agile laser eye protection which responds to any laser wavelength," Maj. Harrington said. That technology is being developed now, but is about a decade away from becoming a reality.

— Mr. Rudy Purificato, 311th HSW

This NF-16D variable-stability in-flight simulator, or VISTA, is the Air Force Test Pilot School's newest trainer. VISTA can play the role of other fighters like the F-15 Eagle or the Navy's F-14 Tomcat.



Edwards receives flexible, flying 'classroom'

It's not exactly a one-size-fits-all aircraft, but the U.S. Air Force Test Pilot School's, or TSP, newest trainer is equivalent to owning several different kinds of airplanes.

The NF-16D variable-stability in-flight simulator, or VISTA, test aircraft arrived at Edwards Air Force Base, Calif., in October, bringing an impressive track record with.

The flying tool has played an integral part in the recent development of many leading-edge designs, such as the F-22 Raptor, the Joint Strike Fighter and NASA's X-38 shuttle lifeboat.

On the VISTA

VISTA features an integrated programmable voice recognition system and a programmable helmet-mounted display that offer students "a unique opportunity to learn how to test future integrated cockpits," said Lt. Col. Tom Buter, TPS technical director.

Plus, by using VISTA, the test pilot school can train its students "...to fly with tomorrow's technology rather than yesterday's," stressed Lt. Col. Michael Sizoo, director of plans and programs.

Although its simulation system is

housed in an F-16 airframe, VISTA can play the role of other fighters, like the F-15 Eagle or the Navy's F-14 Tomcat. Such flexibility allows for improved training and consolidation of some sorties, Col. Sizoo said, adding that it provides a better value for flying-hour costs.

All in one

On a single sortie, students can evaluate specific flying qualities of a broad range of aircraft, such as the F-14's direct lift control feature and experience the unique pitch control characteristics of a delta wing aircraft, such as a F-106, which no longer exists. This saves money and time, as the school doesn't have to arrange for flights in each of these individual aircraft to give students the same quality learning experience.

Moreover, the VISTA allows students to "peel back" the extensive layers of flight control features in today's fly-by-wire systems and to see the effects of each, said Col. Steve Cameron, commandant.

In one VISTA demonstration, students start by flying the basic F-16,

then sequentially remove flight control features until they are flying the aircraft completely manually. "This demonstration gives vivid and dramatic proof for the need and effects of computerized flight controls on inherently unstable aircraft, such as the F-16," Col. Cameron noted.

An ideal platform

The heart of VISTA's simulation system is a suite of high-speed digital computers. All necessary aircraft parameters are sensed and recorded digitally and can be transmitted in real-time by a telemetry downlink. Some of its qualities: automatic safety monitoring system; easily reconfigurable; all-attitude simulation capability.

TPS expects to fly nearly 200 VISTA sorties yearly, with all of its students — pilots, navigators and engineers — taking flights in a plane that provides a test bed for class and staff research projects, Col. Buter said.

And for warfighter support, he added, VISTA delivers "...an ideal test and training platform for tomorrow's integrated battlespace."

— Mr. Ray Johnson, AFFTC Public Affairs

Flight tests go long way toward quality

There's a small group of people at Tinker Air Force Base, Okla., who put their trust and lives in the hands of the Oklahoma City Air Logistics Center aircraft work force. After every aircraft has been disassembled, repaired and reassembled, the 10th Flight Test Squadron performs the flight test to ensure the aircraft is ready to fly as advertised.

"We're quality control, in a sense, for the depot and the depot's first representative of the customer who owns and will fly that aircraft to execute their peacetime and wartime missions," said Lt. Col. J. B. Smith, commander. "We make sure the depot puts out a quality product — and that ultimately protects the interests of the customer to make sure they receive a quality product."

Some people look at the work performed by these test pilots and wonder why they would step onto a plane to test its working condition. It's actually a methodical, step-by-step process for every aircraft — the only rush of excitement might come if there's an in-flight emergency.

"There's a specific technical manual covering the functional check flight for each aircraft," said Col. Smith. "This includes the systems we're to check, how to check them and the expected outcome."

Before the aircraft ever leaves the ground, the test pilot performs a high-powered engine check. Then the aircraft systems operating the pressurization and air conditioning systems are checked.

"After we've taken to the air and checked other systems," said Col. Smith, "we shut the engines down and relight them one at a time to ensure that capability still exists within the envelope described within the flight manual. We constantly practice what we'd do if the engines didn't relight, so we're prepared for that potential emergency."

Climbing into an aircraft that's basically been torn down and put back together again requires training and experience. The squadron's test aircrews all have a background in the various aircraft they now evaluate. "Our experience levels in the squadron far exceed the minimum requirements set by the command," Col. Smith said. "Our aircrews have anywhere from seven years' experience up to 18 years, but good aircraft experience is just the first key. Knowing the differences between an operational-type of mission and the functional check flight mission is the second key. We're not as 'go' oriented as the field — we rarely launch with a malfunctioning or degraded system because our marching orders are to guarantee the aircraft is meeting standards."

Flight tests are not limited by time or distance. The profile depends on the weapon system flown and what checks are being accomplished, which is dictated by the aircraft's technical manual. Some check flights fly as far as Amarillo, Texas, or

Fort Smith, Ark.

"The B-1s typically need to do some high 'G' and high bank maneuvering to check some of their flight control systems, so they go to a military operating area first," said Col. Smith. "In addition, all aircraft have certain instrument approaches they need to perform, as well as checking the anti-skid braking systems during the full-stop landing. It's an action-packed profile, from preflight until shutting the engines down."

"I think our jobs are rewarding," said Capt. Terry Alexander, assistant director of operations. "We get a chance to supply the quality control for the work the center does, since we're the last people to see the aircraft before we turn them over to their users. Making sure our customers get a good

product back is very rewarding. When it leaves us, it's ready to perform its mission — we're the insurance that it will perform."

But no matter how well maintenance is performed, the depth of that maintenance means there will be times when things don't function properly, said Col. Smith. "We flight test about 20 sorties a month between all the weapons systems in Tinker's inventory with less than five full aircrews. In-flight emergencies range from something as simple as an engine not relighting to a high-risk flight control problem. Things may get a little hectic, but we're trained to handle these emergencies."

Another aspect of the squadron's mission is being called to the field to assess damaged aircraft. These aircraft must be temporarily repaired so squadron aircrews can fly them back to Tinker for the permanent repairs. "This means we have to develop a recovery plan of how to fly the damaged aircraft safely and what restrictions we need to apply," said Col. Smith. "Sometimes this is pretty exciting because you're flying an aircraft you know has major damage, and you need to ensure that the repairs and safeguards are sufficient to fly it back to the depot safely."

In tandem with these missions, are the missions to pull aircraft out of the mothball fleets for delivery to foreign buyers. The fleets, located at the Aircraft Maintenance and Regeneration Center, Davis-Monthan AFB, Ariz., consist of aircraft no longer flown by the Air Force. This is similar to recovering damaged aircraft, except that these aircraft have not flown in years, which makes it very challenging, but in a different perspective."

The squadron performs this workload with 30 assigned members — 10 pilots and eight navigators, with the remainder being boom operators, flight engineers, life support, test engineers and administrative personnel.

— Ms. Gail Kulhavy, OC-ALC Public Affairs



Maj. Cary Montgomery, a B 52 instructor pilot, conducts a preflight ground check on a bomber fresh from the depot. The ground check and following functional check flight may take four hours to complete. (Photo by Ms. Margo Wright, OC-ALC Public Affairs)



All in a days work

Three was a lucky number Oct. 24 for the Air Force Flight Test Center, Edwards Air Force Base, Calif., as it supported a trio of major events: the landing of the space shuttle, arrival of X-35A Joint Strike Fighter, or JSF, and the F-22's successful release of an AIM-120 missile.

Space Shuttle touches down

The eventful day ended with the Space Shuttle Discovery touching down after completing the program's 100th mission.

With its signature double sonic booms, the shuttle arrived to cheers from people watching on and off base as NASA's mission control told the six-man crew, "after a rough couple days of weather, Edwards is giving you the best it has to offer."

Originally, Discovery was scheduled to land at Florida's Kennedy Space Center on Oct. 22 but gusty winds forced NASA to divert the landing to Edwards, where the first shuttle mission, Columbia, landed on April 14, 1981. NASA also attempted to bring the Discovery down on Monday; however, continued high winds in Florida and rain clouds here prevented that.

As Discovery rolled to a stop, mission control welcomed its crew back to earth after a 13-day, 5-million-mile mission during which it readied the international space station for its first scheduled full-time residents next week.

"Great to be back," replied commander Col. Brian Duffy, who attended the U.S. Air Force Test Pilot School at Edwards in 1982.

Piloting the shuttle was Lt. Col. Pam Melroy, who attended

test pilot school in 1991 and flew more than 200 combat and combat support hours during Operation Just Cause and Desert Storm before becoming the third woman to fly a shuttle.

X-35A JSF arrives

The Discovery's arrival was just the conclusion of a three-part play that had many dramatic scenes. It opened with Lockheed Martin's X-35A Joint Strike Fighter concept demonstrator touching down after a 20-minute, 30-mile flight from the company's aircraft facility in nearby Palmdale.

After delivering the fighter, X-35A test pilot Mr. Tom Morgenfeld said the test mission, which reached speeds of nearly 300 mph, was trouble-free from beginning to end with "absolutely no surprises."

"The performance, sheer power and responsiveness," he noted, "were exactly what our engineers predicted. But it's the actual flying test that will validate our design and provide the data that will be used for production aircraft to avoid any unexpected problems."

During the X-35A's trip to Edwards, it was put through an initial flight profile that included check-outs of the on-board systems, handling characteristics and down-link connections for a constant stream of critical data-transfer to flight-test technicians. "This wasn't just a ferry flight from one airport to another," Mr. Morgenfeld stressed. "We flew some important test points and made this a work flight-test activity."

The X-35A joins Boeing X-32A, which arrived Sept. 18, for

— *Continued on page 25*

AFMC introduces "Year of the Family"

— Gen. Les Lyles
Commander, Air Force Materiel Command

It's long been said that, in the Air Force, "we recruit the individual, and retain the family."

Recognizing the decisive role families play in the decision to remain in the military or as a civilian Department of Defense employee, I have decided to name fiscal 2001 AFMC's Year of the Family — or YOFAM, for short. The term is borrowed from a similar effort within Air Mobility Command, but our program will be our own.

And I use "family" in the broadest sense of the term — as a group of people working toward a common goal with a mutual regard and concern for one another. This definition includes military members of all ranks — married or single, civilian employees and members of their immediate families, and our contract workers and their families.

Beginning Oct. 1, and continuing into the foreseeable future, I and my subordinate commanders will make a concentrated effort to work on quality of life issues. We will evaluate our current quality of life programs, revamp or end those that aren't working or aren't working well enough and continue to implement those that do work well, while ensuring everyone who can benefit from them knows about them. My staff and I will facilitate this ongoing effort for the command, but it must be implemented at the base level.

My goal is quite simple: ensure that all members of the AFMC family can say YOFAM made a positive impact on their lives and the lives of their loved ones. This won't happen overnight. It will take work, and we need your help.

My first agenda item will be to increase awareness of the many excellent quality of life services already in existence. If you already know, tell a friend. If not, then tell us how we can do a better job of publicizing these services.

That's the second part of our strategy. Your input will be critical. We need honest feedback to develop new quality of life initiatives based on your concerns.

My staff has a YOFAM website located at <https://www.afmc-mil.wpafb.af.mil/HQ-AFMC/DP/YOFAM/index.htm> through which you will be able to voice your quality of life suggestions, or you can send your inputs directly to yofam@wpafb.af.mil.

I promise you that every piece of feedback we receive will be answered in a timely fashion. I hope the leaders at each AFMC base will follow suit and develop their own YOFAM websites with a similar feedback loop to handle base-specific issues.

My YOFAM team and I have already started to explore a variety of initiatives focused on improving the AFMC family's quality of life. Some of them:

- Form focus groups composed of married and single military personnel, family members and civilian employees designed to identify quality of life concerns and potential improvements.

- Assist with base-wide celebrations in conjunction with Military Family Week in November and Spouse Appreciation Day in May.

- Develop an orientation course to help new spouses of military members learn about the lifestyle, culture and customs of the armed services.

- Implement a Squadron Commander's Spouses Course starting in December.

This is just our starting lineup. Your feedback will help us select the next wave of initiatives; their scope is limited only by your imagination. I am sincerely dedicated to improving the AFMC Family's quality of life, but I need your help to make this happen. Your feedback and input are absolutely critical. Together, we can make a difference.

— Continued from page 24

five months of testing, with each demonstrator making roughly 50 test flights to validate their flying qualities and performance for conventional and aircraft carrier operations.

Following that initial phase of testing, the X-35B and X-32B, which are the short takeoff and vertical landing versions, will be tested at the Naval Air Station Patuxent River test site in Maryland.

During flight-testing, they will not compete in a fly-off. Rather, the Department of Defense is requiring the demonstrator aircraft to successfully meet three objectives: commonality and modularity among JSF variants; low-speed handling quality features for carrier flight; and short takeoff and vertical landing.

The JSF concept aims to have a single tactical fighter used by the Air Force, Navy, Marines and England's Royal air force and navy.

About two hours after the X-35A arrival, the F-22 Raptor also made news after it successfully launched an Advanced Medium-Range Air-to-Air Missile over the Naval Air Warfare Center testrange in China Lake, Calif.

This AIM-120 test for the next-generation fighter was important for two reasons, said Col. James Seat, director of the F-22 Combined Test Force, or CTF.

"First, the AIM-120 is the primary weapon for the Raptor, and with this initial launch, the F-22 now is coupled with the

weapon that gives it the "teeth" and lethality to make it the world's best air-superiority fighter," Col. Seat said.

Second, initial AIM-120 separation testing on the next-generation fighter is one of nine flight-test criteria needed to be met by the end of 2000 in order for the F-22 program to begin low rate initial production. With both demonstration missile separation Defense Acquisition Board criteria met — an AIM-9 test was held July 25 — the F-22 CTF now is focusing on initial testing for the integrated avionics suite (called Block 3.0 avionics testing) and in-flight low observability testing.

As for the successful AIM-120 test, Col. Seat called the event "no small task," as extensive modeling and simulation, along with many hours of ground testing, was accomplished prior to the actual launch, and will continue in the future.

"The data collected from this launch will be compared to the model predictions," Col. Seat said, "and the models will be refined as needed. We will now continue to expand the missile launch envelope with launches in increasingly difficult and demanding conditions."

After the AIM-120 launch, F-22 test pilot Lt. Col. Doc Nelson immediately turned for home as the Edwards flight line began shutting down in anticipation of Discovery's landing and the final curtain call of a long day where flight-test history was made — once again.

— Mr. Ray Johnson, AFTC Public Affairs

AFOSR supports Nobel Prize Winners

ARLINGTON, Va. — Three scientists funded by the Air Force Office of Scientific Research, or AFOSR, were awarded Nobel Prizes in Chemistry, Physics, and Medicine.

The Nobel Prize in Chemistry was shared by the three scientists who created a plastic that conducts electricity like a metal, a discovery that has opened up a new field of carbon-based electronics.

Since 1988, one of the three scientists sharing the award, Dr. Alan J. Heeger, University of California Santa Barbara, or UCSB, has received research funding support from AFOSR.

Dr. Heeger received the Nobel Prize for fundamental research in conductive polymer plastics that started in the late 1970's. The importance of the research and its progression from his earlier and subsequent efforts is recognized by this prestigious award.

Dr. Herbert Kroemer, a Physics professor at UCSB, is one of the three scientists sharing this year's Physics Award. The Royal Swedish Academy of Sciences awarded them the Nobel Prize for developing electrical components that allow for fast communication using fiber optics and satellites. He received AFOSR support from 1995-2000.

Dr. Paul Greengard, head of the Laboratory of Molecular and Cellular Neuroscience, Rockefeller University, N.Y., won the 2000 Nobel Prize in Physiology or Medicine for his discovery of how dopamine and a number of other transmitters in the brain exert their action in the nervous system. His early work was supported by AFOSR in mid-1980s.

This is the second consecutive year that AFOSR's support, along with several other sources of funding, has helped a researcher to receive a Nobel Prize for his work in Chemistry. In 1999, Dr. Ahmed Zewail, the Linus Pauling Professor of Chemical Physics and professor of Physics at the California Institute of Technology, was the winner in Chemistry, for pioneering "femtochemistry". This trailblazing research was supported by AFOSR.

Located in Arlington, Va., AFOSR is one of the ten directorates of the Air Force Research Laboratory and it manages the basic research investment

for the Air Force. Each year, AFOSR discovers, supports and furthers cutting edge research that creates the ingredients for maintaining the world's finest Air Force.

— *Reported by AFOSR Public Affairs*

AFMC members earn president's honor

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Six AFMC command members earned the presidential rank of distinguished executive Oct. 5.

The presidentially-appointed honor is given to only 1 percent of the approximately 6,000 career members of the senior executive service government wide. The AFMC winners are as follows:

— Mr. James Barone, Sacramento Air Logistics Center, McClellan AFB, Calif., executive director.

Mr. Barone tackled industry and elements from all three branches of the federal government to make sure the nation's defense capabilities were transitioned in the most effective manner, saving approximately \$650 million in the process.

His leadership and business acumen allowed McClellan to meet the nation's global defense needs, especially those related to actions in Kosovo.

— Mr. Robert May Jr., Air Force Research Laboratory executive director at Wright-Patterson.

Mr. May forged an integrated propulsion team that successfully met numerous complex challenges, from providing engine support for more than 17,000 combat sorties flown during Kosovo operations to dealing with the turmoil associated with the Base Realignment and Closure Commission decision to close a major Air Force depot.

— Mr. Leslie Bordelon, systems acquisition director at Los Angeles AFB, Calif.

Mr. Bordelon orchestrated Space and Missile System Center's re-engineering that absorbed manpower cuts while he simultaneously increased customer responsiveness, networked at the national level to create a performance-based business environment across government and industry, and led activity-based costing to address spiraling acquisition costs.

His space test and safety guidelines have the potential to preclude repeating losses costing more than \$3.5 billion during the past 18 months.

— Mr. Raymond Urtz, information directorate director at AFRL's facility in Rome, N.Y.

Mr. Urtz's directorate is the most cost effective of the nine AFRL technology directorates, according to his nomination package. He created partnerships to extend the laboratory's capacity and impact. One cited example is a public-private program which brought in \$12 million in New York state funding to transfer lab-developed technology and stimulate the local economy.

He also convinced more than 50 academic institutions to form an Information Institute, a research collaborative, attracting new funding and focusing research efforts on strategic concerns.

— Mr. Robert Frye, Standard Systems Group, or SSG, director at Maxwell-Gunter Annex, Ga.

Mr. Frye reorganized his commercial product purchasing activities into one group and encouraged them to embrace acquisition reform that resulted in cutting acquisition time from more than a year to six weeks.

His efforts saved customers more than \$25 million in fiscal 1999 alone and reduced ordering time from 41 days to 3 hours. His leadership was instrumental in getting the SSG headquarters to reach Level III of the Carnegie Mellon Software Engineering Institute's Capability Maturity Model. This is a level less than 15 percent of all software development organizations worldwide reach.

— *Reported by Sgt. Carl Norman, AFMC Public Affairs*

AFRL and Brooks leaders earn top AFEB honors

BROOKS AIR FORCE BASE, Texas — Air Force Research Laboratory scientist Dr. James Jauchem was the top winner among several Brooks leaders honored at the Alamo Federal Executive Board's annual "Excellence in Government" awards ceremony held in San Antonio in September.

This awards program publicly recognizes outstanding employees, supervisors and managers whose commitment to service displays both

professional and personal achievements. Dozens of federal agencies competed in several categories within the awards program.

Dr. Jauchem, a research physiologist with the U.S. Air Force Research Laboratory Human Effectiveness Directorate Directed Energy Bioeffects Division's Radiofrequency Radiation Branch, was selected as "Professional of the Year" in the Department of Defense agency category. He won the award on the strength of his research on biological effects of non-ionizing energy.

Dr. Jauchem's research team has conducted several studies involving ultra-wideband microwave pulse exposures possibly affecting cardiovascular changes and cancer development. Lt. Col. Jared Astin with the Air Force Center for Environmental Excellence, or AFCEE, was second runner-up within Dr. Jauchem's category.

As chief of AFCEE's Environmental Restoration Division, Col. Astin was honored for his work and leadership involving DOD's environmental clean-up efforts at the Massachusetts Military Reservation on Cape Cod, Mass.

AFCEE's Dr. William Myers also earned second runner-up honors in the DOD agency supervisory category.

As Environmental Planning Division chief, Dr. Myers earned the honor based on his leadership involving the development of Geospatial Information Systems, computerized information embedded in digitized maps.

The 311th Human Systems Wing's Aeromedical Evacuation Team was first runner-up in the "Outstanding Team" civilian agency category. This organization is a 42-member, multi-skilled team that is responsible for implementing six aeromedical evacuation programs. Among the team's achievements is its improvements to the Spinal Cord Injury Transport System.

The team was previously recognized for its work here as "Integrated Product Team of the Year" for 1999.

— Reported by Rudy Purificato, 311th HSW

AFMC civilian recognized for valor

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — A plans specialist at AFMC is a recent recipient of the Air Force's civilian award for valor.

While attending a conference in

October 1999, Mr. George Hilyard took his family to a beach near Okaloosa Island, Fla. When they arrived, he noticed red flags were posted indicating dangerous swimming conditions — strong currents and riptides were prevalent.

A short time later, several swimmers disregarding the warnings got caught in riptides. Without any thoughts for his own safety, he ran to the water to assist those in trouble. After helping one woman to shore, he returned to the water.

Then he got into trouble. "The tide carried me away from shore," he said. "I was exhausted from the effort and was constantly being pushed under."

He was grabbed by a lifeguard and strapped to a life preserver board, then taken to a Fort Walton Beach medical center, treated for irregular heartbeats, X-rayed and given tests and medication. The attending physician told him he was lucky to be alive.

The Air Force Civilian Award for Valor is a mirror of the military Airman's Medal, which recognizes those who voluntarily risk their individual safety beyond the call of duty.

— Reported by Ms. Libby VanHook, AFMC Public Affairs

Eglin paint supervisor wins Technical Award

The small contribution paid big dividends for a 46th Maintenance Squadron paint supervisor at Eglin Air Force Base, Fla., when he discovered that he was an Air Force award winner.

Mr. Al Holley was notified July 13 that he was the winner of the Gen. Edwin Rawlings-Technical award. He was nominated for the award for designing an environmentally friendly paint spray gun cleaner.

This award recognizes the significant achievements of individuals in conserving energy and furthering national energy policy. It stimulates Air Force employees to conserve scarce energy resources and generates interest in the Air Force energy program.

For years, the Air Force used a paint spray called methoethylkeytone to spray paint planes. It was not until 1998 when this environmental hazard was outlawed in the Air Force and the search for an alternative solvent began.

Inland Technology, a company based in Tacoma, Wash., provided the Air Force with an alternative to methoethylkeytone, the IT 921. However, it did not have a spray gun cleaner to go with the solvent.

Mr. Holley knew that the spray gun cleaner should be stainless steel, disassemble easily for cleaning and had to be air driven. He put the idea on paper and presented the design to his supervisor. Six months later staff from IT and Mr. Holley proved that two heads are better than one when they came up with IT-45 spray gun cleaner.

Holley's design worked perfectly and was adopted by the 33rd Fighter Wing, 46th Test Wing and the civilian market. In addition, his system reduced the need for 2,160 pounds of paint thinner and saved \$8,700 per year in hazardous waste disposal fees during the two squadrons' consolidation.

— Reported by AAC Public Affairs



"Ultimately, the strength of our Air Force comes down to the talent, dedication and diversity of its people. We draw our strength from the bonds formed by mutual respect, our sense of community, and our shared purpose to make the world a better, safer place."

F. Whitten Peters
Secretary of the Air Force

